







Mathematics 10th Class English Medium Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	A quadrilateral is called cyclic when a circle can be drawn through its _____ vertices:	A. Two B. Three C. Four D. Five
3	Question Image	
4	In $a : b :: b : c$, where c is called:	A. Fourth proportional B. Meanproportional C. Thirdproportional D. Continuedproportional
5	The identity $(5x + 4)^2 = 25x^2 + 40x + 16$ is true for:	A. One value of x B. Two value of x C. All values of x D. None of these
6	Mean is affected by change in _____:	A. Place B. Scale C. Rate D. Origen
7	All the radii of a circle are equal in:	A. Segment B. Measure C. Length D. Portion
8	Which of the following is a reciprocal equation ?	A. $ax^3 + bx^3 + cx + d = 0$ B. $ax^4 - bx^3 + cx^2 - bx + a = 0$ C. $ax^4 + bx^3 + cx^2 + dx + e = 0$ D. $ax^4 + bx^3 + cx^2 + bx + a = 0$
9	Question Image	A. 4.13 B. 3.14 C. 15.4 D. 17.3
10	1 radian is equal to:	A. $57^\circ 16' 45''$ B. $57^\circ 17' 45''$ C. $57^\circ 18' 55''$ D. $57^\circ 17' 35''$
11	The symbol for a circle:	
12	Formula to determine the size of a class is:	A. $X_{\max} - X_{\min}$ B. $X_{\max} + X_{\min}$ C. Range/number of groups D. number of groups/Range
13	Question Image	
14	The complement of \emptyset is.....	A. U B. \emptyset C. Impossible D. Union
15	A 4cm long chord subtends a central angle of 60° . The radial segment of this circle is:	A. 1 B. 2 C. 3 D. 4
16	Two tangents drawn to a circle from a point outside it are of _____ in length	A. Half B. Equal C. Double D. Triple
17	$\cos 60^\circ =$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
		A. $45^\circ 21' 36''$

18	D° M' S"form of 45.36° is:	B. 45° 21' 36" C. 45° 21' 36" D. 45° 21' 36°
19	Question Image	C. 1
20	Point (-1,4) lies in quadrant:	A. I B. II C. III D. IV
21	In which quadrant only Sinθ and Co cosθ are positive?	A. I B. II C. III D. IV
22	x-coordinate of every pint on x-axis is.	A. +ve B. -ve C. zero D. 1
23	The arcs opposite to incongruent central angles of a circle are always:	A. Congruent B. Incongruent C. Parallel D. Perpendicular
24	Question Image	A. 1 B. -1 C. 0 D. 2
25	The class having maximum frequency is called..... class.	A. Model B. Median C. Lower D. Upper
26	Median from the data 2.3,2.7,2.5,3.1 and 1.9 is.....	A. 2.3 B. 2.5 C. 2.7 D. 2.9
27	In a proportion a : b :: c : d, b and c are called:	A. Means B. Extremes C. Fourth proportional D. None of these
28	Arms of an angle called:	A. Terminal sides B. Rays C. Rotation of arms D. Position
29	Radii of a circle are:	A. All equal B. Double of the diameter C. All unequal D. Half of any chord
30	The most frequent occurring observation in a set of data is called.	A. Mode B. Median C. Hamonic mean D. Mean
31	The measure of the external angles of a regular hexagon is:	
32	Cosθ, Secθ =	A. 1 B. tanθ C. 0 D. Cosθ
33	In equation $5^{1+x} + 5^{1-x} = 26$, we put:	A. $5^{2x} = y$ B. $5^{1+x} = y$ C. $5^{1-x} = y$ D. $5^x = y$
34	Angle inscribed in a semicircle is always:	A. 90° B. 60° C. 120° D. 360°
35	The measure of central tendency which is not affected by extreme values is called:	A. Median B. Arithmetic mean C. Geometric mean D. None of these
36	Rang =.....	A. $X_{m+1} - X_o$ B. $X_m - X_o$ C. $X_m - X_o$ D. $X_o - X_m$

37	Which of the following is associative law of union?	<p>A. $A \cup (B \cap C) = (A \cup B) \cap C$</p> <p>B. $A \cap (B \cap C) = (A \cap B) \cap C$</p> <p>C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$</p> <p>D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$</p>
38	$\pi/6$ radians =	<p>A. 30°</p> <p>B. 60°</p> <p>C. 45°</p> <p>D. 90°</p>
39	A tangent to a circle is perpendicular to the radial segment drawn to the point of:	<p>A. Contact</p> <p>B. Tangency</p> <p>C. Concurrence</p> <p>D. Tangent</p>
40	If $a : b = c : d$, then $a : c = b : d$ is called theorem of:	<p>A. Invertendo</p> <p>B. Componendo</p> <p>C. Dividendo</p> <p>D. Alternando</p>
41		<p>A. An improper fraction</p> <p>B. An equation</p> <p>C. A proper fraction</p> <p>D. None of these</p>
42	In which quadrant all trigonometric ratios are positive?	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
43		<p>A. 214</p> <p>B. 256</p> <p>C. 273</p> <p>D. 296</p>
44	If $\tan \theta = \sqrt{3}$ then $\theta =$	<p>A. 30°</p> <p>B. 45°</p> <p>C. 60°</p> <p>D. 90°</p>
45	In a set of observation. 5,5,7,9,9,9,11,11,11,11,12,12 the mode is:	<p>A. 9</p> <p>B. 11</p> <p>C. Both 9 and 11</p> <p>D. None of these</p>
46	Standard form of quadratic equation is:	
47		<p>A. -1</p> <p>B. 1</p> <p>C. 0</p>
48	If f is a function from A to B , then f is one - one function if:	<p>A. Range $f \neq A$</p> <p>B. Range $f = B$</p> <p>C. Dom $f = A$</p> <p>D. Second element of all ordered pairs contained in f is not repeated.</p>
49	In a circle radius 10 what is the length of arc intercepted by a central angle of 60° :	<p>A. $\pi/3m$</p> <p>B. $3/10\pi m$</p> <p>C. $10\pi/3m$</p> <p>D. $\pi/30m$</p>
50	To find the public opinion or trend the most suitable statistics is:	<p>A. Mean</p> <p>B. Median</p> <p>C. Mode</p> <p>D. Variance</p>
51		
52		<p>A. Polynomial</p> <p>B. Variable</p> <p>C. Constant</p> <p>D. Co-efficient</p>
53	A grouped frequency table is also called.....	<p>A. Data</p> <p>B. Frequency distribution</p> <p>C. Frequency polygon</p> <p>D. Histogram</p>
54	The standard deviation is 6 then its variance is.....	<p>A. 36</p> <p>B. 36</p> <p>C. 3</p> <p>D. 6</p>

55	Geometric mean of 2,4,8 is.....	A. 2 B. 4 C. 8 D. 3
56	In proportion a:b::c:d, b and c are called:	A. Means B. Extremes C. Third proportional D. None of these
57	A part of the circumference of a circle is called a/an :	A. angel B. arc C. circumference D. radian
58	In class (10-19) , upper class limit is.	A. 10 B. 19 C. 29 D. 14.5
59	$\tan 30^\circ =$	A. $\frac{1}{2}$ B. $\frac{\sqrt{3}}{2}$ C. $\sqrt{3}$ D. $\frac{1}{\sqrt{3}}$
60	The mean of the squared deviations of X observations from their arithmetic mean is called.	A. Variance B. Standard deviation C. Range D. Harmonic mean
61	$\tan 60^\circ =$	A. $\frac{1}{2}$ B. $\frac{\sqrt{3}}{2}$ C. $\sqrt{3}$ D. $\frac{1}{\sqrt{3}}$
62	The symbol for a triangle is denoted by:	
63	Formula of variance is group data is:	
64	A frequency polygon is a many sides.	A. Closed figure B. Rectangle C. Circle D. Triangle
65		A. P(Product of the roots) B. S (Sum of the roots) C. D (Difference of the roots) D. R (Ratio of the roots)
66	Equation $3^{2-x} + 6 = 0$ is of type:	A. Exponential B. Radical C. Reciprocal D. Non
67	The nature of roots depends on the value of:	A. $-b+4ac$ B. b^2+4c C. b^2-4ac D. $-b+4ac$
68	Sum of the deviations of values x from its mean is always "i.e $\sum (x-\bar{x})$ " is to equal:	A. itself B. zero C. median D. mode
69	If $x \in U$ and $x \notin A$, then $\{x\}$ is equal to	A. $U \cup C$ B. $A \cup C$ C. $\emptyset \cup C$ D. $A - U$
70	The positive square root of mean of the squared deviation of $X_i (i=1,2,3,\dots,n)$ observations from their arithmetic mean is called.	A. Harmonic mean B. Range C. Standard deviation D. Variance
71	The decimal degrees of $25^\circ 30'$ is:	A. 25.2° B. 25.3° C. 25.4° D. 25.5°
72	An identity is:	A. An equation B. A polynomial C. A fraction D. A ratio
73	A histogram is a set of adjacent.	A. Squares B. Rectangles C. Circles

D. Closed figures

74	Question Image	C. 2 D. 1
75	The ratio of 1km to 600m is:	A. 1 : 6 B. 5 : 3 C. 3 : 2 D. 2 : 1
76	The system of measurement in which the angle is measured in radian is called.	A. CGS system B. Sexagesimal system C. Circular system D. MSK sytem
77	Which of the following is De-Morgan's law?	A. $(A \cup B) \cup C = A \cup (B \cup C)$ B. $(A \cap B) \supset C \Rightarrow A \supset C \supset B$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
78	Standard deviation is denoted by	A. x B. S C. S^2 D. X^2
79	Synthetic division is simply a short cut of:	A. H.C.F B. L.C.M C. Long division method D. Factorization
80	An arc which is shorter than the half of the circumference is called:	A. minor arc B. major arc C. segment D. semi arc
81	The circular region bounded by two radii and the corresponding arc is called:	A. Circumference of a circle B. Sector of a circle C. Diameter of a circle D. Segment of a circle
82	A circle of radius 'r' has area:	A. πr^2 B. $2\pi r$ C. $2\pi r^2$ D. $1/2\pi r$
83	The boundary traced by a moving point in a circle its _____:	A. Circumference B. Diameter C. Radius D. Area
84	A grouped frequency table is also called:	A. Data B. Frequency distribution C. Frequency Polygon
85	Venn diagram was first used by.....	A. John Venn B. Netwon C. Arthur Cayler D. John Napier
86	Types of dispersion are.....	A. 4 B. 5 C. 6 D. 8
87	The quadratic formula is:	
88	If the two circles touches externally, then the distance between their centres is equal to the:	A. Difference of their radii B. Sum of their radii C. Product of their radii
89	$1/1 + \sin\theta + 1/1 - \sin\theta$	A. $2\sec^2\theta$ B. $2 \cos^2\theta$ C. $\sec^2\theta$ D. $\cos\theta$
90	Question Image	
91	Question Image	
92	The straight line joining any two points on the circumference of a circle is called:	A. Chord B. Sector C. Radius D. Arc

93	Question Image	A. 115' B. 135° C. 150° D. 30°
94	In a cumulative frequency polygon frequencies are plotted against.	A. Midpoints B. Upper class boundaries C. Class limits D. Frequency
95	In ax^2+bx+c , the co-efficient of x is:	A. b B. d C. c D. a
96	Question Image	
97	If $b^2-4ac>0$ and is a perfect square, then roots are:	A. Rational and equal B. Rational and unequal C. Irrational and equal D. Irrational and unequal
98	In which quadrant only $\tan\theta$ and $\cot\theta$ are positive.	A. I B. II C. III D. IV
99	The geometric mean of the a observations 2,4,8, is:	A. 2 B. 8 C. 4 D. no geometric mean
100	The different number of way to describe a set are.	A. 1 B. 2 C. 3 D. 4
101	The some of cube roots of unity is:	A. Zero B. One C. Two D. Three
102	A proportion is a statement which expressed as an equivalence of:	A. Four ratios B. Threeratios C. Tworatios D. Oneratio
103	$\sin^2\theta + \cos^2\theta = \dots\dots\dots$	A. $\tan^2\theta$ B. $\cos^2\theta$ C. 1 D. 0
104	A root of an equation, which do not satisfy the given equation is called:	A. Endogenous root B. Extraneous root C. Internal root D. Radical root
105	A fraction in which the degree of the numerator is greater or equal to the degree of denominator is called:	A. A proper fraction B. An improper fraction C. An equation D. Algebraic relation
106	In degree measurement, 1° is equal to:	A. 1° B. 60° C. 90° D. 360°
107	The opposite angles of any quadrilateral inscribed in a _____ are supplementary:	A. Circle B. Square C. Hexagon D. Rectangle
108	$\cot 45^\circ =$	A. 1 B. -1 C. 0 D. Not defined
109	How many right angles are there in 360 degree?	A. Two B. Four C. Six D. Eight
110	In degree measurement . $1'$ is equal to:	A. 1° B. 60° C. 90° D. 360°
		A. -Sec 60°




111	Sec $(-60^\circ) = \dots\dots\dots$	<p>B. Sec 60°</p> <p>C. Cos 60°</p> <p>D. Cot 60°</p>
112	Formula of arc length is.	<p>A. $l = r\theta$</p> <p>B. $r = l\theta$</p> <p>C. $\theta = lr$</p> <p>D. $l = r/\theta$</p>
113	A collection of well-defined distinct objects is called.	<p>A. subset</p> <p>B. Power set</p> <p>C. Set</p> <p>D. None of these</p>
114	Angles between 0° and 90° are to which quadrant?	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
115	The average pocket money of 30 students is Rs.20/- , The total amount in the class is:	<p>A. Rs.20/-</p> <p>B. Rs.30/-</p> <p>C. Rs.300/-</p> <p>D. Rs.600/-</p>
116	Question Image	<p>A. $u = \frac{w^2}{v}$</p> <p>B. $u = \frac{v^2}{w}$</p> <p>C. $u = \frac{w^2}{v^2}$</p> <p>D. $u = \frac{v^2}{w^2}$</p>
117	Area of $\Delta ABC = :$	<p>A. $\frac{1}{2}(\text{base})(\text{altitude})$</p> <p>B. $2(\text{base})(\text{altitude})$</p> <p>C. $\frac{1}{2} \times \text{base}/\text{altitude}$</p> <p>D. $(\text{base})(\text{altitude})$</p>
118	The formula of grouped data of the arithmetic mean is:	<p>A. $\bar{X} = \frac{\sum X}{n}$</p> <p>B. $\bar{X} = A + \frac{\sum fX}{\sum X}$</p> <p>C. $\bar{X} = \frac{\sum fX}{n}$</p> <p>D. $\bar{X} = l + n/f (n/2 - c)$</p>
119	If A and B are two disjoint sets then $A \cup B =$ _____	<p>A. A</p> <p>B. B</p> <p>C. \emptyset</p> <p>D. $B \cup A$</p>
120	An equation of the form $2x^4 - 3x^3 + 7x^2 - 3x + 2 = 0$ is called a/an:	<p>A. Reciprocal equation</p> <p>B. Radicalequation</p> <p>C. Exponentialequation</p> <p>D. None of these</p>
121	Question Image	<p>A. $\frac{1}{2}$</p> <p>B. Rational fraction</p> <p>C. Improper fraction</p> <p>D. Irrational fraction</p>
122	One minute is denoted by:	<p>A. $1'$</p> <p>B. $1''$</p> <p>C. 1°</p> <p>D. $60'$</p>
123	Question Image	<p>B. 1</p>
124	An equation of the type $3^x + 3^{2-x} + 6 = 0$ is a/an _____ equation:	<p>A. Radical</p> <p>B. Exponential equation</p> <p>C. Reciprocal</p> <p>D. None of these</p>
125	If θ lies in 2nd (second) quadrant then $\sin \theta$ and $\operatorname{cosec} \theta$ are:	<p>A. negative</p> <p>B. positive</p> <p>C. zero</p> <p>D. undefined</p>
126	Sum roots of $4x^2 - 3x + 6 = 0$:	
127	The different number of ways to describe a set are:	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>
128	The length of a tangent to a circle is from the given point to the point of:	<p>A. start point</p> <p>B. end points</p> <p>C. contact</p> <p>D. collinear</p>

129	The discriminant of $7x^2+8x+1=0$ is:	<p>B. 37</p> <p>C. 36</p> <p>D. 38</p>
130	The formula of group data of the median is:	<p>A. $l + \frac{h}{f} \left(\frac{n}{2} - c \right)$</p> <p>B. $l + \frac{\sum fx - \sum f x_n}{\sum f}$</p> <p>C. $l + \frac{f_{m-1} - f_{m+1}}{2f_m - f_{m-1} - f_{m+1}} \times h$</p> <p>D. $A + \frac{\sum fu}{\sum f} \times h$</p>
131	Which of the following is associative law of Intersection?	<p>A. $A \cup (B \cap C) = (A \cup B) \cap C$</p> <p>B. $A \cap (B \cap C) = (A \cap B) \cap C$</p> <p>C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$</p> <p>D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$</p>
132	A straight line, drawn from the centre of a circle to bisect a chord is _____ to the chord:	<p>A. Parallel</p> <p>B. Equidistant</p> <p>C. Perpendicular</p> <p>D. Congruent</p>
133	In which quadrant 0 lie when $\sec\theta < 0$, $\sin\theta < 0$?	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
134	If A and B are disjoint sets then $A \cup B$ is equal to:	<p>A. A</p> <p>B. B</p> <p>D. $A \cup B$</p>
135	If f is a function from A to B, then f is onto function if:	<p>A. Range $\neq B$</p> <p>B. Range $= B$</p> <p>C. Dom $f = A$</p> <p>D. Second element of all ordered pairs contained in f is not repeated.</p>
136	Perpendicular from the centre of a circle on a _____ bisects it:	<p>A. Segment</p> <p>B. Arc</p> <p>C. Sector</p> <p>D. Chord</p>
137	Sum of the roots =	
138	$\sin\theta \cos\theta = \dots\dots\dots$	<p>A. $\sin\theta$</p> <p>B. $1/\cos\theta$</p> <p>C. $1/\sin\theta$</p> <p>D. $\sin\theta/\cos\theta$</p>
139	The Discriminant of $ax^2+bx+c=0$ is:	<p>A. b^2-4ac</p> <p>B. b^2+4ac</p> <p>C. $-b^2+4ac$</p> <p>D. $-b^2-4ac$</p>
140	The nth positive root of the product of the $x_1, x_2, x_3, \dots, x_n$ observation is called.	<p>A. Mode</p> <p>B. Mean</p> <p>C. Geometric mean</p> <p>D. Median</p>
141	An arc subtends a central angle of 40° then corresponding chord will subtend a central angle of _____:	<p>A. 20°</p> <p>B. 40°</p> <p>C. 60°</p> <p>D. 80°</p>
142	Harmonic mean for 1,2,5,8,4 is.....	<p>A. 6.08</p> <p>B. 5.08</p> <p>C. 7.08</p> <p>D. 4.08</p>
143	The circumference of circle is called:	<p>A. Chord</p> <p>B. Segment</p> <p>C. Boundary</p>
144	Circles having three points in common will:	<p>A. Be perpendicular</p> <p>B. Concide</p> <p>C. Intersect</p> <p>D. Be equal</p>
145	The system of measurement in which angle is measured in radian is called.	<p>A. C.G.S System</p> <p>B. Sexagesimal system</p> <p>C. M.K.S.System</p> <p>D. circular system</p>
146	If set A has 3 elements and B has 4 then $A \times B$ has _____ elements.	<p>A. 3</p> <p>B. 4</p> <p>C. 12</p> <p>D. 7</p>
147	If $b^2-4ac < 0$, then the roots of $ax^2+bx+c=0$ are:	<p>A. Irrational</p> <p>B. Rational</p> <p>C. Imaginary</p> <p>D. None of these</p>

148	y co-ordinate of every pint on x-axis is.	A. +ve B. -Ve C. zero D. 1
149	The radian measure of an angle that forms a complete circle is:	A. 2π B. 3π C. 4π D. 6π
150	If $A \subseteq B$ and $B \subseteq A$, then	A. $A = B$ B. $A \neq B$ C. $A \cap B = \emptyset$ D. $A \cup B = \emptyset$
151	Through how many non collinear points, a circle can pass ?	A. One B. Two C. Three D. None
152	if A and B are disjoint sets , then $A \cup B$ is equal to.	A. A B. B C. \emptyset D. $B \cup A$
153	A frequency polygon is a many side.....	A. Closed figure B. Rectangle C. Square D. Circles
154	Question Image	A. 2 B. 6 D. 5
155	$1^\circ =$	A. 0.0175 radians B. 0.175 radians C. 1.75 radians D. 175 radians
156	The spread of observations in a data set is called.	A. Average B. Dispersion C. Central tendency D. Mean
157	The complement of U is.....	A. U B. \emptyset C. impossible D. Union
158	π radians =	A. $0 ⁰$ B. $90 ⁰$ C. $180 ⁰$ D. $360 ⁰$
159	$A \cup A^c =$	A. U B. A C. $A ^c$ D. $<p \text{ class="MsoNormal"><!--[if gte msEquation 12]><m:oMathPara><m:oMath><i style="mso-bidi-font-style:normal"><m:r></m:r></i></m:oMath></m:oMathPara><![endif]><!--[if !msEquation]><!--[if gte vml 1]><v:shapetype id="_x0000_t75" coordsize="21600,21600" o:spt="75" o:preferrelative="t" path="m@4@5l@4@11@9@11@9@5xe" filled="f" stroked="f"><v:stroke jointstyle="miter"><v:formulas><v:f eqn="if lineDrawn pixelLineWidth 0"><v:f eqn="sum @0 1 0"><v:f eqn="sum 0 0 @1"><v:f eqn="prod @2 1 2"><v:f eqn="prod @3 21600 pixelWidth"><v:f eqn="prod @3 21600 pixelHeight"><v:f eqn="sum @0 0 1"><v:f eqn="prod @6 1 2"><v:f eqn="prod @7 21600 pixelWidth"><v:f eqn="sum @8 21600 0"><v:f eqn="prod @7 21600 pixelHeight"><v:f eqn="sum @10 21600 0"></v:formulas><v:path o:extrusionok="f" gradientshapeok="t" o:connecttype="rect"><o:lock v:ext="edit" aspectratio="t"></v:shapetype><v:shape id="_x0000_i1025" type="#_x0000_t75" style="width:6.75pt; height:14.25pt"><v:imagedata src="file:///C:/Users/Softsol/AppData/Local/Temp/msohtmlclip1/01/clip_image001.png" o:title="" chromakey="white"></v:shape><![endif]><!--[if !vml]><!--[endif]><!--[endif]><o:p></o:p></p>$
160	A quadratic factor is:	A. $ax ² + bx + c$ B. $ax + b$ C. $Ax + B + c$ D. $bx + c$
161	The $D^\circ M' S''$ form of 32.25° is:	A. $32^\circ 05'$ B. $32^\circ 10'$ C. $32^\circ 15'$ D. $32^\circ 20'$

162	The mode in the data 1,3,5,3,7,9	A. 1 B. 3 C. 5 D. 7
163	The union of two non-collinear rays with common end point is called a/an:	A. Ray B. Side C. Angle D. Vertx
164	The domain of $R = \{(0, 2), (2, 3), (3, 3), (3, 4)\}$ is:	A. $\{0, 3, 4\}$ B. $\{0, 2, 3\}$ C. $\{0, 2, 4\}$ D. $\{2, 3, 4\}$
165	$\tan 180^\circ =$	A. 0 B. 1 C. Not defined D. -1
166	The n^{th} positive root of the product of the $x_1, x_2, x_3, \dots, x_n$ observations is called:	A. Mode B. Mean C. Geometric mean
167	In a cumulative frequency Polygon frequencies are plotted against:	A. Mid points B. Upper class boundaries C. Class limits
168	If $\tan \theta = 1$ then $\sin \theta =$ _____ when θ lies in 3rd quadrant.	A. $1/2$ B. $-1/2$ C. $-\frac{1}{\sqrt{2}}$ D. $\frac{1}{\sqrt{2}}$
169	In class (30-39), lower class limit is....	A. 39 B. 9 C. 30 D. 34.5
170	A value best representing a set of data is called:	A. Average B. Variance C. Standard derivation D. None of these
171	In a ratio a:b, a is called:	A. Relation B. Antecedent C. Consequent D. None of these
172	$\tan \theta, \cot \theta =$	A. $\sin \theta$ B. $\sec \theta$ C. 1 D. 0
173	$20^\circ =$ _____	A. $360'$ B. $630'$ C. $1200'$ D. $360'$
174	If variance is equal to 36 then the standard deviation will be:	A. 36 B. 6 C. -6 D. none of these
175	In a ratio x:y, y is called:	A. Relation B. Antecedent C. Consequent D. None of these
176	$A \cap A^c =$	A. U B. A^c C. \emptyset D. A
177	$1^\circ =$	A. 180π radian B. π radian C. $\pi/180$ radian D. $180/\pi$ radian
178	The quotient is indicated by a:	A. Comma (,) B. Bracket () C. Bar (-) D. Hyphen (!)
179	The angle subtended by an arc at the circumference of a circle is called a:	A. Acute angle B. Circum angle C. Abtue angle

D. Ascribe angle

180	The radian measure of an angle that form a complete circle is.	A. $\pi/2$ B. π C. 2π D. 4π
181	The ratio of a and b is written as:	B. $a :: b$ C. $a : b$ D. $a = b$
182		A. $u = v^{2/2}$ B. $u = kv^{2/2}$ C. $uv^{2/2} = k$ D. $uv^{2/2} = 1$
183	$3\pi/4$ radian =	A. 115° B. 135° C. 150° D. 30°
184	How many tangents can be drawn from a point outside it ?	A. 1 B. 2 C. 3 D. 4
185	Find x in proportion 4:x::5:15	D. 12
186	Product of roots of equation $5x^2+3x-9=0$:	
187	In ax^2+bx+c , if $a = 0$ then reduced form is:	A. $ax^{2/2}+bx$ B. $bx+c$ C. c D. $ax^{2/2}+c$
188	$\cot 60^\circ =$ _____	A. $1/\sqrt{3}$ B. $\sqrt{3}$ C. $1/2$ D. 2
189	How many tangents can be drawn from a point outside the circle ?	A. 1 B. 2 C. 3
190		
191	The relation $R = \{(1,2),(2,3),(3,3),(3,4)\}$ IS:	A. Not a function B. Onto function C. One-One function D. Into function
192	If $a : b = c : d$, then $b : a = d : c$ is called theorem of:	A. Invertendo B. Alternando C. Dividendo D. Componendo
193	The size of class interval (6-10) is.	A. 4 B. 5 C. 8 D. 10
194	median from the data 82,93,86,92 and 79 is.....	A. 82 B. 86 C. 92 D. 93
195	During frequency distribution number of groups should be between.....	A. 5 and 10 B. 10 and 15 C. 10 and 20 D. 5 and 15
196		A. An identity B. An equation C. A faction D. None of these
197	A central angle is subtended by two radii with the vertex at the _____ of the circle:	A. Arc B. Radius C. Centre D. Chord
198	If a chord of a circle subtends a central angle of 60° , then the length of the chord and the radial segment arc:	A. Congruent B. Incongruent C. Parallel D. Perpendicular
199	Angle inscribed in a semi-circle is:	

200	Find k, if the roots are equal in $(k+3)x^2 - 2(k+1)x - (k+1) = 0$:	A. 2, -1 B. -2, -1 C. -2, 1 D. 2, 1
201	$\cos 30^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
202	Two circles cannot cut each other at more than _____ points:	A. One B. Two C. Three D. Four
203	$\operatorname{cosec} 60^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
204	The set $\{x \mid x \in A \text{ and } x \notin B\}$ is.....	A. $A \cup B$ B. $A \cap B$ C. $A - B$ D. $B - A$
205	1° into radians is:	A. 0.0195 radians B. 0.0165 radians C. 0.0185 radians D. 0.0175 radians
206	The measure which determines the middle most observation in a data set is called.	A. Median B. Mode C. Mean D. Rang
207	On the basis of types of variable of data, the types of frequency distribution are.	A. 2 B. 3 C. 4 D. 5
208	The measures that are used to determine the degree or extent of variation in a data set are called measures of:	A. Dispersion B. Central tendency C. Average
209	Quadratic equation is also known as equation of:	A. Standard form B. Polynomials C. Second degree D. Higher order
210	Question Image	
211	From a point outside the circle _____ tangents can be drawn:	A. One B. Two C. Three D. Four
212	The observations that divide a data set into four equal parts, are called.	A. Deciles B. Quartiles C. Percentiles D. Mode
213	The formula of area of circular sector is:	A. $\frac{1}{2}r^2\theta$ B. $r^2\theta$ C. $\frac{1}{2}r^2\theta$ D. $2r^2\theta$
214	$O \cap E = \dots\dots\dots$	A. \emptyset B. O C. E D. Z
215	A frequency polygon is a many sided:	A. Closed figure B. Rectangle C. Square
216	$\cot 60^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. $\sqrt{3}$ D. $1/\sqrt{3}$
217	A circle has only one:	A. Secant B. Chord C. Diameter D. Centre
218	Question Image	A. 9 B. 7 C. 5 D. 2

219	The extent of variation between two extreme observations of a data set is measured by:	A. Average B. Range C. Quartiles
220	The number of terms in a standard quadratic equation $ax^2+bx+c=0$ is:	A. 1 B. 2 C. 3 D. 4
221	To solve $(x+a)(x+b)(x+c)(x+d) = k$, we have:	A. $a-b=b-c$ B. $a-b=c-d$ C. $a+b=c+d$ D. $a-c=b-c$
222	The discriminant of $2x^2-7x+1=0$ is:	A. 41 B. 45 C. 43 D. 47
223	The set $\{x/x \in W \wedge x \leq 101\}$ is.	A. Infinite set B. Sub set C. Null set D. Finite set
224	In a set of data 63,65,66,67,69, median is:	A. 63 B. 66 C. 67 D. 69
225	Question Image	
226	Question Image	A. An equation system B. A constant C. A quadratic equation D. An identity
227	$N \cap W = \dots\dots\dots$	A. \emptyset B. $\{\emptyset\}$ C. N D. W
228	The tangent and radius of a circle at the point of contact are _____:	A. Parallel B. Not perpendicular C. Perpendicular D. None of these
229	Which of the following is complete description of Real numbers?	A. $N \cup W = R$ B. $O \cup E = R$ C. $P \cup Q = R$ D. $Q \cup Q' = R$
230	The value obtained by reciprocating the mean of the reciprocal of $x_1, x_2, x_3, \dots, x_{11}$ observation is called.....	A. Geometric mean B. Median C. Harmonic mean D. S.D
231	In which quadrant 0 lie when $\cos \theta < 0$, $\tan \theta < 0$?	A. I B. II C. III D. IV
232	Mean is affected by change in:	A. Value B. Ratio C. Origin
233	A pair of chords of a circle subtending two congruent central angles is:	A. Congruent B. Incongruent C. Over lapping D. Parallel
234	If a circle passes through three or more points then these points are called:	A. Incyclic B. Concyclic C. Circumcyclic D. Bicyclic
235	1 minute = _____ degree	A. 1/60 B. 60 C. 1/3600 D. 3600
236	The point (-5,-7) lies in quadrant.	A. I B. II C. III D. IV


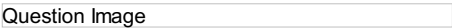
237	NU W =	<p>B. $\{W\}$</p> <p>C. N</p> <p>D. W</p>
238	Question Image	
239	$\text{Cosec}^2\theta - \text{Cot}^2\theta =$	<p>A. -1</p> <p>B. 1</p> <p>C. 0</p> <p>D. $\tan\theta$</p>
240	The union of two non-collinear rays, which have common end point is called:	<p>A. An angle</p> <p>B. Degree</p> <p>C. A minute</p> <p>D. A radian</p>
241	In the given set of data 5,5,5,5,5,5 the standard deviation is:	<p>A. 5</p> <p>B. 0</p> <p>C. 7</p> <p>D. None of these</p>
242	Question Image	
243	Any portion of the circumference will be known as _____ of the circle:	<p>A. A chord</p> <p>B. An arc</p> <p>C. A tangent</p> <p>D. An angle</p>
244	Sum of deviations of the variable X from its mean is always	<p>A. Zero</p> <p>B. One</p> <p>C. Same</p> <p>D. None</p>
245	The number of elements of the power set {a,b} are.	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>
246	A ratio has:	<p>A. No units</p> <p>B. One unit</p> <p>C. Two units</p> <p>D. Three units</p>
247	What is radius in circle ?	<p>A. Perimeter</p> <p>B. Half the diameter</p> <p>C. Segment line</p>
248	If $a = 7$, $b = 8$ and $c = 1$ then $b^2 - 4ac$ is equal to:	<p>A. 33</p> <p>B. 34</p> <p>C. 35</p> <p>D. 36</p>
249	Question Image	
250	Tangents drawn at the ends of _____ of a circle are parallel to each other:	<p>A. Chord</p> <p>B. Diameter</p> <p>C. Corners</p> <p>D. Arc</p>
251	A part of the circumference of a circle is called:	<p>A. A segment</p> <p>B. A sector</p> <p>C. An arc</p> <p>D. A radius</p>
252	A data in the form of frequency distribution is called:	<p>A. Grouped data</p> <p>B. Ungrouped data</p> <p>C. Histogram</p>
253	A subset of $A \times A$ is called..... in A.	<p>A. Set</p> <p>B. Relation</p> <p>C. Function</p> <p>D. Info function.</p>
254	Mean is affected by change in;	<p>A. Place</p> <p>B. Scale</p> <p>C. Rate</p>
255	The straight line that bisect the circle is called:	<p>A. Sector</p> <p>B. Radius</p> <p>C. Diameter</p> <p>D. Segment</p>
256	Roots of the equation $4x^2 - 5x + 2 = 0$ are:	<p>A. Irrational</p> <p>B. Imaginary</p> <p>C. Rational</p> <p>D. None of these</p>

A. Circumference

257	The boundary of a circle is called:	B. Arc C. Line D. Area
258	If A is subset of U, then $(A^c)^c = \dots\dots\dots$	A. A B. $A^{c/c}$ C. $U^{c/c}$ D. \emptyset
259	The total of frequency up to an upper class limit or boundary is called:	A. frequency B. class frequency C. cumulative frequency D. relative frequency
260	In continued proportion $a:b = b:c$, $ac = b^2$, b is said to be _____ proportional between a and c:	A. Third B. Fourth C. Means D. None of these
261	An arc subtends a central angle of 40° then the corresponding chord will subtend a central angle of:	A. 20° B. 40° C. 60° D. 80°
262	The data presented in the form of frequency distribution is called:	A. distribution B. grouped data C. range data D. regrouped data
263	_____ Common tangents can be drawn for two touching circles:	A. 2 B. 3 C. 4 D. 5
264	$\text{Co sec } 45^\circ = \dots\dots\dots$	A. 1 B. $\sqrt{2}$ C. $1/\sqrt{2}$ D. 0
265	If the rotation of the ray is clock wise, the angle has _____ measure:	A. Degree B. Negative C. Positive D. Standard
266	The measure which determines the middlemost observation in a data set is called.....	A. Median B. Mode C. Mean D. Variance
267	a deviation is defined as a difference of any value of the variable from a.....	A. Constant B. Histogram C. sum D. Frequency
268	A fraction in which the degree of numerator is less than the degree of the denominator is called:	A. An equation B. An improper fraction C. An identity D. A proper fraction
269	Which of the following is distributive property of union over intersection?	A. $A \cup (B \cap C) = A \cup (B \cup C)$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
270	Formula $s = r\theta$ is true only when θ is in:	A. degree B. radian C. revolution D. minute
271	A chord passing through the centre of a circle is called:	A. Radius B. Diameter C. Circumference D. Secant
272	The tangent and radius of a circle at the point of contact are:	A. Parallel B. Not perpendicular C. Perpendicular
273	If $b^2 - 4ac > 0$ and is not a perfect square, then roots are:	A. Rational and unequal B. Irrational and equal C. Rational and equal D. Irrational and unequal
274	Arithmetic mean of 34,34,34,34,34,34 is.	A. 0 B. 341 C. 6 D. 170

The mean of the squared deviations of x_i from 4

A. Mean

275	The mean of the squared deviations of x_i ($i = 1, 2, \dots, n$) observations from their arithmetic mean is called:	A. variance B. Standard deviation C. Range
276	Mean is affected by change in	A. Place B. Scale C. Rate D. None of these
277	In $a : b :: b : c$, b is called:	A. Meanproportional B. Thirdproportional C. Continuedproportional D. Fourthproportional
278	Sec $45^\circ = \dots\dots\dots$	A. 1 B. $\sqrt{2}$ C. $1/\sqrt{2}$ D. 0
279	Which mathematical expression is correct:	
280	An equation involving impression of the variable under _____ is called radical equation:	A. Second degree B. Exponent C. Radical D. Cube
281	If $b^2 - 4ac = 0$, then roots are:	A. Rationaland equal B. Irrationaland equal C. Irrationaland unequal D. Rational and unequal
282	$(A \cup B) \cap C$ is equal to	A. $A \cap (B \cup C)$ B. $(A \cup B) \cap C$ C. $A \cup (B \cap C)$ D. $A \cap (B \cap C)$
283	The nth root of product of 'n' number of values is called:	A. Arithematic mean B. Geometric mean C. Harmonic mean D. Standard deriviation
284	Line segment joining any point of the circle to the centre is called:	A. Circumference B. Diameter C. Radial segment D. Perimeter
285		
286	The distance between the centres of two congruent touching circles externally is:	A. Of zero length B. The radius of each circle C. The diameter of each circle D. Twice the diameter of each circle
287	If number of elements in set A is 3 and in set B is 4 then number of elements in $A \times B$ is:	A. 3 B. 4 C. 12 D. 7
288	A line which has two points in common with a circle is called:	A. Sine of a circle B. Cosine of a circle C. Tangent of a circle D. Secant of a circle
289	The sum of the squares of the sides of a rhombus is equal to the sum of the squares of its:	A. Sides B. Diagonlas C. Medians D. Altitude
290	If $a = 2$, $b = -7$, $c = 1$, then the value of $b^2 - 4ac$ is:	A. 37 B. 39 C. 41 D. 42
291		A. <p>$\frac{a}{b}$ Proper fraction</p> B. <p>$\frac{a}{b}$ Rational fraction</p> C. <p>$\frac{a}{b}$ Improper fraction</p> D. <p>$\frac{a}{b}$ Irrational fraction</p>
292	If $a : b = c : d$, then $a + b : b = c + d : d$ is called theorem of :	A. Alternando B. <p>$\frac{a}{b} = \frac{c}{d}$ Invertendo</p>

C. Dividendo
D. Componendo

293	45° = _____ radian.	A. $\pi/3$ B. $\pi/4$ C. $\pi/6$ D. $\pi/2$
294	If $a:b = x:y$, then alternando property is:	
295	The arrangement of data is necessary to find the value of.	A. Mean B. Median C. Mode D. Range
296	Line intersecting a circle is called:	A. Tangent B. Secant C. Chord D. Diameter
297	Question Image	
298	Number of ways to solve quadratic equation are:	A. 1 B. 2 C. 3 D. 4
299	The expression " b^2-4ac " of a quadratic equation is called:	A. Determinant B. Redicand C. Discriminant D. Index
300	The measures that are used to determine the degree or extent of variation in a data set are called:	A. central value B. A.M C. measures of dispersion D. median
301	Product of the roots of the equation $3x^2-5x+7=0$:	A. $3^{>7}</sup>$ B. $7^{>3}</sup>$
302	In ratio $a : b$, the first term is called:	A. Extremes B. Means C. Consequent D. Antecedent
303	Mode from the following data ,4,4,5,5,6,6,7,7,8,8,6,5,6,5,7 is.....	A. 4 B. 5 C. 5.6 D. 5.7
304	A and A^c are.....Set.	A. Universal B. Overlapping C. Disjoint D. Super
305	A set with no element is called:	A. Subset B. Empty set C. Singleton set D. Super set
306	If $x \in A$ and $x \in B$, then $\{x\}$ is equal to .	A. $A - B$ B. $A^{>c}</sup>$ C. $A \cap B$ D. $B^{>c}</sup>$
307	The locus of a moving point P in a plane which is always equidistant from some fixed point O is called:	A. Segment line B. Radial segment C. Circle D. Circumference
308	Question Image	
309	Power set of an empty set is.	A. \emptyset B. $\{a\}$ C. $\{\emptyset, \{a\}\}$ D. $\{\emptyset\}$
310	$\cot 30^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. $\sqrt{3}$ D. $1/\sqrt{3}$
311	The circumference of a circle is called _____ of a circle:	A. Chord B. Arc C. Radius D. Boundary
312	Question Image	

313	The concept of antilogarithm is used to find the value of.....	A. A.M. B. G.M. C. H.M D. Mode
314	If $a = -2$, $b = -1$ and $c = -1$, then discriminant is equal to:	A. 17 B. -17 C. -7 D. 7
315	$\sin 30^\circ = \dots\dots\dots$	A. $\frac{1}{2}$ B. $\frac{\sqrt{3}}{2}$ C. 2 D. $2/\sqrt{3}$
316	$1/\tan\theta = \dots\dots\dots$	A. $\tan\theta$ B. $\sec\theta$ C. $\operatorname{Co} \sec\theta$ D. $\cot\theta$
317	Out of two congruent arcs of a circle, if one arc makes a central angle of 30° then the other arc will subtend the central angle of:	A. 15° B. 30° C. 45° D. 60°
318	Factors of $x^2 - x - 2 = 0$ are:	A. $(x-1)(x+2)$ B. $(x-1)(x-2)$ C. $(x-1)(x-2)$ D. $(x+1)(x+2)$
319	A part of circumference of a circle is called.	A. Radians B. Chord C. Sector D. Arc
320	One and only one circle can be drawn through _____ non-collinear collinear points:	A. One B. Two C. Three D. Four
321	A histogram is a set of adjacent.....	A. Squares B. Rectangles C. Circles D. Dots
322	One and only one circle can pass through _____ non-collinear points:	A. Two B. Three C. Four D. Five
323	$A' = \dots\dots\dots$	A. $\{x \mid x \in U \wedge x \in A\}$ B. $\{x \mid x \in U \wedge x \notin A\}$ C. $\{x \mid x \in U \wedge x \in A\}$ D. $\{x \mid x \in U \wedge x \notin A\}$
324	$1 + \cot^2 \theta$	A. $\sin^2 \theta$ B. $\cos^2 \theta$ C. $\operatorname{Cosec}^2 \theta$ D. $\sec^2 \theta$
325	the set $\{0, \pm 1, \pm 2, \pm 3, \dots\dots\dots\}$ is:	A. Set of natural numbers B. Set of whole numbers C. Set of prime numbers D. Set of integers
326	The ratio of the circumference and the diameter of the circle is:	A. r B. e C. d
327	Collection of distinct objects.	A. Subset B. Power set C. Set D. None of the
		A. 20°




328	In an arc of circle subtends a central angle 60° , then corresponding chord will make central angle:	<p>A. 40°</p> <p>C. 60°</p> <p>D. 80°</p>
329	An equation of the type $3^x + 3^{2-x} + 6 = 0$ is called a/an:	<p>A. Reciprocal equation</p> <p>B. Radical equation</p> <p>C. Exponential equation</p> <p>D. None of these</p>
330	If an arc of a circle subtends a central angle of 60° , then the corresponding chord of the arc will make the central angle of:	<p>A. 20°</p> <p>B. 40°</p> <p>C. 60°</p> <p>D. 80°</p>
331	$\sec\theta \cot\theta =$ _____	<p>A. $\sin\theta$</p> <p>B. $1/\sin\theta$</p> <p>C. $1/\cos\theta$</p> <p>D. $\sin\theta / \cos\theta$</p>
332	Identify the equation whose roots are imaginary and unequal:	<p>A. $2x^2 - x + 1 = 0$</p> <p>B. $x^2 + 8x + 16 = 0$</p> <p>C. $3x^2 + 4x + 2 = 0$</p> <p>D. $x^2 - 7x + 7 = 0$</p>
333	If $B = \{1, 2, 100\}$ and $C = \{2, 100\}$, then $B \cap C =$ _____	<p>A. $\{1, 2\}$</p> <p>B. $\{1, 2, 100\}$</p> <p>C. $\{2\}$</p> <p>D. $\{2, 1\}$</p>
334	$\cot 45^\circ =$	<p>A. 1</p> <p>B. $\sqrt{2}$</p> <p>C. $1/\sqrt{2}$</p> <p>D. 0</p>
335	If two arcs of a circle (or of congruent circles) are congruent, then the corresponding chord are:	<p>A. Perpendicular</p> <p>B. Parallel</p> <p>C. Bisect each other</p> <p>D. Equal</p>
336	Range for the data 110, 109, 84, 89, 77, 104, 74, 97, 49, 59, 103, 62 is	<p>A. 41</p> <p>B. 51</p> <p>C. 61</p> <p>D. 71</p>
337	Arithmetic means is a measure that determines a value of the variable under study by dividing the sum of all values of the variable by their...	<p>A. Number</p> <p>B. Group</p> <p>C. Denominator</p> <p>D. Numerator</p>
338	Two triangles are similar if and only of their corresponding are equal:	<p>A. Sides</p> <p>B. Points</p> <p>C. Angles</p> <p>D. Squares</p>
339	In a proportion $a:b:c:d$, and d are called:	<p>A. Means</p> <p>B. Extremes</p> <p>C. Third proportional</p> <p>D. None of these</p>
340	Diameter of a a circle divides it into many parts?	<p>A. two</p> <p>B. three</p> <p>C. four</p> <p>D. countless</p>
341	An angle inscribed in a semicircle is:	
342	Question Image	<p>A. $\frac{1}{2}$</p> <p>B. $\frac{1}{3}$</p> <p>C. $\frac{1}{4}$</p> <p>D. $\frac{1}{5}$</p>
343	If one quantity increases and other decreases, the variation is:	<p>A. Inverse</p> <p>B. Direct</p> <p>C. Indirect</p> <p>D. Equal</p>
344	Point $(-1, 4)$ lies in the quadrant:	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
345	The fourth proportional w of $x : y :: v : w$ is:	<p>C. xyv</p>

346	Product of extremes = product of _____.	A. Consequents B. Antecedent C. Ratios D. Means
347	A quadratic equation has:	A. Two roots B. Three roots C. Fourroots D. Fiveroots
348	A complete circle is divided into:	A. 90° B. 180° C. 270° D. 360°
349	Question Image	A. One variable B. Twovariable C. Threevariable D. Fourvariable
350	Number of terms in standard Quadratic Equation $ax^2+bx+c=0$	A. 1 B. 2 C. 3 D. 4
351	A group frequency table is called.	A. Data B. Frequency distribution C. Frequency polygon D. None of these
352	In a class of frequency distribution 14 - 18, the 18 is:	A. Upper class limit B. Lower class limit C. Class interval D. All of these
353	Question Image	C. 1 D. -1
354	In a unit circle, $\cos\theta =$ _____	A. y B. x C. y/x D. None of these
355	How many common tangents can be drawn for two disjoint circles ?	A. 2 B. 3 C. 4
356	A set having only one member.	A. Empty set B. Power set C. Singleton set D. Sub set
357	A circle of radius 'r' has a circumference of:	A. πr^2 B. $2\pi r$ C. $2\pi r^2$ D. $1/2\pi r$
358	E - O =	A. \emptyset B. O C. E D. Z
359	$\pi/3$ radians =.....	A. 30° B. 45° C. 60° D. 90°
360	Question Image	A. 2 B. 1 C. 0
361	In a set of data 41,43,47,51,57,52 ,59 median is:	A. 51 B. 47 C. 52 D. None of these
362	The positive square root of mean of the squared deviations of $x_i(i=1, 2, \dots, n)$ observations from their arithmetic mean is called:	A. Harmonic mean B. Range C. Standard deviation
363	$\operatorname{Cosec}^2\theta - \cot^2\theta =$	A. -1 B. 1 C. 0 D. $\tan\theta$
364	Every improper fraction can be reduced to sum of polynomial and a proper fraction by:	A. Addition B. Division C. Subtraction

D. Multiplication

365	60 seconds makes _____ minute:	<p>A. 1</p> <p>B. 2</p> <p>C. 3</p> <p>D. 4</p>
366	If the incentre and circumcentre of a triangle coincide, the triangle is:	<p>A. An isosceles</p> <p>B. A right triangle</p> <p>C. An equilateral</p>
367	If $x \subseteq A$ and $x \subseteq B$, then $\{x\}$ is equal to.....	<p>A. $A - B$</p> <p>B. $B - A$</p> <p>C. $A \cap B$</p> <p>D. $A \cup B$</p>
368	Question Image	
369	In which quadrant only $\cos \theta$ and $\sec \theta$ are positive?	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
370	Question Image	<p>A. Rational number</p> <p>B. Irrational number</p> <p>C. Natural number</p> <p>D. Real number</p>
371	The nature of roots in equation $7x^2 + 8x + 1 = 0$ is:	<p>A. Rational and unequal</p> <p>B. Irrational and unequal</p> <p>C. Rational and equal</p> <p>D. Irrational and equal</p>
372	Equation is $2x^4 - 3x^3 + 7x^2 - 3x + 2 = 0$ called:	<p>A. Reciprocal</p> <p>B. Radical</p> <p>C. Exponential</p> <p>D. None</p>
373	The line joining the two points of circle is called:	<p>A. Chord</p> <p>B. Diameter</p> <p>C. Arc</p> <p>D. Radius</p>
374	The domain of $\{(a,b), (b,c), (c,d)\}$ is.....	<p>A. $\{a,b,c\}$</p> <p>B. $\{b,c,d\}$</p> <p>C. $\{a,b\}$</p> <p>D. $\{a,b,c,d\}$</p>
375	$(A \cap B)' =$ _____	<p>A. $A' \cup B'$</p> <p>B. $A' \cap B'$</p> <p>C. $A \cap B$</p> <p>D. $A \cup B$</p>
376	The relation $\{(1, 2), (2, 3), (3, 3), (3, 4)\}$ is:	<p>A. Onto function</p> <p>B. In to function</p> <p>C. Not a function</p> <p>D. One-one function</p>
377	If $y = 8$ and $x = 4$, then $k = xy$, we get $k =$	<p>A. 12</p> <p>B. 32</p> <p>C. 84</p> <p>D. 114</p>
378	The common end point of arms of an angle is known as:	<p>A. Angles</p> <p>B. Arms</p> <p>C. Vertex</p> <p>D. Rays</p>
379	If $A \subseteq B$ then $A \cup B$ is equal to	<p>A. A</p> <p>B. B</p> <p>C. \emptyset</p> <p>D. None of these</p>
380	The symbol used to denote a minute is:	<p>A. 1"</p> <p>B. 1'</p> <p>C. 1°</p> <p>D. 1'''</p>
381	Question Image	<p>A. 90°</p> <p>B. 45°</p> <p>C. 60°</p> <p>D. 30°</p>
382	$\pi/2$ radians =	<p>A. 30°</p> <p>B. 45°</p> <p>C. 60°</p> <p>D. 90°</p>


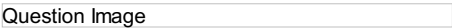
383	Question Image	
384	If $b^2 - 4ac < 0$, then roots are:	A. Unreal B. Imaginary C. Real D. Unequal
385	Number of elements in power set of $\{1,2,3\}$	A. 4 B. 6 C. 8 D. 9
386	The semi circumference, and the diameter of a circle both subtend a central angle of:	A. 90° B. 180° C. 270° D. 360°
387	Power set of empty set.	A. \emptyset B. $\{a\}$ C. $\{\emptyset, \{a\}\}$ D. $\{\emptyset\}$
388	The measures that are used to determine the degree or extent of variation in a data set are called measures of.....	A. Dispersion B. Central tendency C. Average D. Quartile
389	The straight line joining any two points of the circumference is called:	A. Segment of circle B. Arc of circle C. Chord of circle D. Tangent of circle
390	Coding formula of group data of the arithmetic mean is:	A. $\bar{X} = \frac{\sum fX}{\sum f}$ B. $\bar{X} = \frac{\sum fD}{\sum f}$ C. $\bar{X} = A + \frac{\sum fu}{\sum f} \times h$ D. $\bar{X} = A + \frac{\sum fu}{\sum f}$
391	The number of methods to solve a quadratic equation is:	A. 1 B. 2 C. 3 D. 4
392	Question Image	
393	$(A \cup B) \cup C =$ _____	A. $A \cap (B \cup C)$ B. $(A \cup B) \cap C$ C. $A \cup (B \cup C)$ D. $A \cap (B \cap C)$
394	If $\tan \theta = \sqrt{3}$ then θ is equal to .	A. 30° B. 45° C. 60° D. 90°
395	To resolve rational fraction, the numerator $N(x)$ must be lower degree than the:	A. Quotient $Q(x)$ B. Denominator $D(x)$ C. Numerator $N(x)$ D. Polynomial $R(x)$
396	$1 + \tan^2 \theta =$	A. $\sin^2 \theta$ B. $\cos^2 \theta$ C. $\cot^2 \theta$ D. $\sec^2 \theta$
397	The discriminant of $x^2 + 8x + 16 = 0$:	A. 4 B. 3 C. 2 D. 0
398	$\sum [(x_i - \bar{x})^2] =$	A. 0 B. 1 C. -1 D. 2
399	The square of standard deviation :	A. Standard deviation B. Range C. Dispersion D. Variance
400	Which of the following is true?	A. $W \subseteq N$ B. $Z \subseteq W$ C. $N \subseteq P$ D. $P \subseteq W$
401	A histogram is a group/ set of adjacent:	A. squares B. circles C. rectangle D. cube

402	The relation $\{(a,b),(b,c),(a,d)\}$ is.....	A. A function B. Not a function C. Range D. Domain
403	2π radian =	A. 0° B. 90° C. 180° D. 360°
404	Product of cube roots of unity is:	A. 0 B. 1 C. -1 D. 3
405	The observations that divide a data set into four equal parts are called:	A. Deciles B. Quartiles C. Percentiles
406	$20^\circ =$	A. 360° B. 630° C. 1200° D. 3600°
407	A Deviation is defined as a difference of any value of the variable from a:	A. Constant B. Histogram C. Sum
408	The observation that divide a data set into four equal parts are called.	A. Declies B. Quartiles C. Percentiles D. Harmonic mean
409	If the rotation of the rays is anti-clock wise, the angle has _____ measure:	A. Positive B. Radian C. Standar D. Negative
410		A. A proper fraction B. An improper fraction C. An identity D. An constant term
411	In equation $ax^2+bx+c=0$, a and b are:	A. Constants B. Co-efficients C. Variables D. Factors
412		
413	Any two angles in the same segment of a circle are:	A. Unequal B. Equal C. Parallel D. Perpendicular
414	If $a : b = c : d$, then $a + b : a - b = c + d : c - d$ is called theorem of:	A. Componendo-Dividendo B. Invertendo C. Dividendo D. Componendo
415	$1/1+\sin\theta + 1/1- \sin\theta$	A. $2 \sec^2\theta$ B. $2 \cos^2\theta$ C. $\sec^2\theta$ D. $\cos\theta$
416	The reciprocal of Arithmetic mean of reciprocal of values is called:	A. Average B. Harmonic mean C. Geometric mean D. None of these
417	Sum of the cube roots of unity is:	A. 0 B. 1 C. -1 D. 3
418		A. <p>Proper fraction</p> B. Rational fraction C. Irrational fraction D. Improper fraction
		A. I B. II

419	In which quadrant 0 lie when $\cos\theta < 0$, $\sin\theta < 0$?	<p>B. II</p> <p>C. III</p> <p>D. IV</p>
420	Which is one is a quadrantal angel?	<p>A. 30°</p> <p>B. 45°</p> <p>C. 60°</p> <p>D. 90°</p>
421	if $a=1$, $b=-3$ and $c=3$, then discriminant is:	<p>A. 3</p> <p>B. -2</p> <p>C. 2</p> <p>D. -3</p>
422	Locus of a point in the plane equidistant from a fixed point is called:	<p>A. Radius</p> <p>B. Circle</p> <p>C. Circumference</p> <p>D. Diameter</p>
423	In proportion $7:4::p:8$, $p =$ _____:	<p>A. 14</p> <p>B. $7/2$</p> <p>D. -14</p>
424	A second degree equation in one variable x is of the form:	<p>A. ax^2+bx+c</p> <p>B. ax^2+bx+c</p> <p>C. $ax+bx+c$</p> <p>D. ax^2+bx+c</p>
425	The Range of R is, if $R = \{(1,3),(2,2),(3,1),(4,4)\}$.	<p>A. {1,2,4}</p> <p>B. {3,2,4}</p> <p>C. {1,2,3,4}</p> <p>D. {1,3,4}</p>
426	Right bisector of the chord of a circle always passes through the:	<p>A. Radius</p> <p>B. Circumference</p> <p>C. Centre</p> <p>D. Diameter</p>
427	$\sec 30^\circ =$	<p>A. $1/2$</p> <p>B. $\sqrt{3}/2$</p> <p>C. 2</p> <p>D. $2/\sqrt{3}$</p>
428	Question Image	
429	If two circles touch each other, their centres and point of contact are:	<p>A. Coincident</p> <p>B. Non-collinear</p> <p>C. Collinear</p>
430	The distance of any point of the circle to its center is called:	<p>A. radius</p> <p>B. diameter</p> <p>C. a chord</p> <p>D. an arc</p>
431	The circumference of a circle is divide into _____ degrees:	<p>A. 180°</p> <p>B. 270°</p> <p>C. 360°</p> <p>D. 30°</p>
432	$\cot 45^\circ =$ _____	<p>A. $1/2$</p> <p>B. $-1/2$</p> <p>C. $1/\sqrt{2}$</p> <p>D. 1</p>
433	If a line is drawn perpendicular to a radial segment of a circle at its occurs and point, it is _____ to the circle at that point:	<p>A. Radial</p> <p>B. Parallel</p> <p>C. Tangent</p> <p>D. Perpendicular</p>
434	The Portion of a circle between two radii and an arc is called:	<p>A. Sector</p> <p>B. Segment</p> <p>C. Chord</p>
435	If $f: A \rightarrow B$ and range of $f = B$, then f is an.....	<p>A. into function</p> <p>B. onto function</p> <p>C. bijective function</p> <p>D. function</p>
436	$\pi/4$ radians =	<p>A. 30°</p> <p>B. 60°</p> <p>C. 45°</p> <p>D. 90°</p>
437	The circular region bounded by an arc of a circle and its two corresponding radial segments is called a:	<p>A. Sector of the circle</p> <p>B. Area of the circle</p> <p>C. Radius of the circle</p> <p>D. Circumference of the circle</p>
		A. Zero



438	The product of three cube roots of unity is:	B. Four C. Two D. One
439	The line that passes through centre and touches a circle at two points is called:	A. Diameter B. Radius C. Arc D. Corners
440	If Y is directly proportional to x it can be written as:	C. $x = y$ D. $y : x$
441	Tangents drawn at the end points of the diameter of a circle are:	A. Parallel B. Perpendicular C. Intersecting
442	The radius of incircle is called:	A. In-radius B. Escribed radius C. E-radius D. Radius
443	O - E =	A. \emptyset B. O C. E D. Z
444	If 1 is the zero of polynomial, then remainder is:	A. 3 B. 2 C. 0 D. 1
445	Sum of the deviations of the variable "X" from its mean is always:	A. Zero B. One C. Same
446	$U' =$ _____	A. U B. A C. A' D. ϕ
447	The set having only one element is called.	A. Null set B. Power set C. Singleton set D. Subset
448	The angle subtended by an arc at the centre of a circle is called its:	A. Outer angle B. Central angle C. Complementary angle D. Supplementary angle
449	The union of two noncollinear rays, which have common end point is called.	A. A Radian B. A Minute C. A degree D. An angle
450	Fundamental trigonometric ratios are.	A. 3 B. 4 C. 5 D. 6
451	The circumference of a circle is:	
452	Any chord divides a circle into two:	A. Parts B. Segments C. Sectors D. Shapes
453	The third proportional of x^2 and y^2 is:	B. $x^2 \supset y^2 \supset$
454	In which quadrant 0 lie when $\cos \theta < 0$, $\sec \theta < 0$?	A. I B. II C. III D. IV
455	If set A has 3 and B has 2 elements then number of binary relations of A \times B.	A. 2^2 B. 2^8 C. 2^6 D. 2^3
456	Question Image	A. $\frac{1}{2}$ B. Improper fraction C. Irrational fraction D. Rational fraction

457	$\sin 60^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
458	If $A = \{1, 2, 3\}$, $B = \{4, 5\}$ and $R = \{(1, 4), (2, 5), (3, 4)\}$ then R is _____	A. One - one function from A to B B. A function A to A C. Not a function D. An onto function from A to B
459	$1/2 \text{ cosec } 45^\circ$	A. $1/2\sqrt{2}$ B. $1/\sqrt{2}$ C. $\sqrt{2}$ D. $\sqrt{3}/2$
460	The system of measurement in which the angle is measured in radians is called:	A. CGS system B. Sexagesimal system C. MKS system D. Circular system
461	The length of two common tangents to two circles are _____ to each other:	A. Perpendicular B. Equal C. Parallel D. Un-equal
462	Perpendicular bisectors of sides of the triangle provides the:	A. Radius B. Segment C. Diameter D. Centre
463	90 degree makes _____ right angle:	A. 2 B. 4 C. 1 D. 3
464	$(x+3)^2 = x^2 + 6x + 9$ is:	A. A linear equation B. An equation C. An identity D. None of these
465	Question Image	
466	If $\{x x=p/q, q \neq 0, p, q \in \mathbb{Z}\}$ then this is a _____	A. Set of even numbers B. Set of rational number C. Set of irrational numbers D. Set of integers
467	The difference between upper limit of two consecutive classes in a frequency table is called:	A. Class limit B. Class interval C. Class mark D. All of these
468	If $R = \{(a, 2), (b, 3), (c, 3)\}$, then $\text{Dom } R =$ _____	A. $\{1, 2\}$ B. $\{1, 2, 3\}$ C. $\{a, b, c\}$ D. $\{a, c\}$
469	A circle of any radius can be constructed by rotating a compass about:	A. A chord B. An arc C. The straight line D. A fixed point
470	A _____ is the locus of a moving point P in a plane which is equidistant from some fixed point O.	A. circle B. diameter C. chord D. circumference
471	The quotient of two numbers or algebraic expressions is called:	A. Ratio B. Fraction C. Proportion D. Percentage
472	In $a : b :: c : d$, d is called:	A. Thirdproportional B. Fourthproportional C. Meanproportional D. Continuedproportional
473	Point $(-1, 4)$, lies in the quadrant.	A. I B. II C. III D. IV
474	The value of i is equal to:	
475	If $R = \{(0, 0), (8, 2), (10, 3), (14, 12)\}$, then $\text{Dom } R =$ _____	A. $\{0, 8, 10, 14\}$ B. $\{0, 2, 3, 12\}$ C. $\{8, 10, 4\}$ D. $\{0, 10\}$

476	If 12, p and 3 are in continued proportion, then p = _____	
477	Any pair of radii divides a circle into _____ sectors:	A. Two B. Three C. Four D. Five
478	In which quadrant θ lie when $\sin \theta > 0$, $\tan \theta < 0$?	A. I B. II C. III D. IV
479	If $A \subseteq B$ the $A \cap B =$ _____	A. A B. B C. \emptyset D. $A \cup B$
480	The relation $\{(1,2),(2,3),(3,3),(3,4)\}$ is.	A. Onto function B. Into function C. Not a function D. One-One function.
481	In a circle, the tangents drawn at the ends of a chord make equal _ with that chord	A. square B. angle C. cube D. circle
482	If $(x+1)(7x+1) = 0$ then x is equal to:	
483	If A has two elements and B has 3 elements, then number of binary relations in $A \times B$ is _____	A. 2×3 B. 2^3 C. 2^6 D. 2^2
484	$\sec 270^\circ =$	A. 0 B. 1 C. -1 D. Not defined
485	The standard form of quadratic equation is:	A. $x^2 + 6 = 7x$ B. $x^2 - 7x = 6$ C. $7x + 6 = x^2$ D. $x^2 - 7x + 6 = 0$
486	Cube roots of -1 are:	
487		A. 4 B. 3 C. 1 D. 0
488	If number of elements in set A is 3 and in set B is 2, then number of binary relations in $A \times B$ is.	A. 3 B. 4 C. 7 D. 12
489	A set containing no element is called.	A. subset B. Empty set C. Singleton set D. Super set
490	In $ax^2 + bx + c$, the constant term is:	A. a B. b C. c D. d
491	If two chords of a circle (or of congruent circles) are equal, then their corresponding arcs (minor, major or semi circular) are:	A. Proportional B. Equal C. Congruent D. Bisecting chords
492	A central angle is subtended between any two chords of a circle, having:	A. Circumference B. Diameter C. Radius D. Central angle
493		A. 1 D. 0
494	The portion of circumference of a circle is:	A. Radius B. Chord C. Arc D. Segment
495	The spread or scatterness of observations in a data set is called:	A. Average B. Dispersion C. Central tendency

496	Two square roots of unity are:	A. 1,-1
497	A single fraction which is the simplified form of two or more than two fractions is called:	A. Proper fraction B. Improper fraction C. Rational fraction D. Resultant fraction
498	The solution set of equation $4x^2-16=0$ is:	B. {4}
499	The measure of the external angles of a regular octagon is:	
500	Which of the following is distributive property intersection over union?	A. $A \cup (B \cap C) = A \cup (B \cap C)$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
501	The number of time a value appears on a set of data is called:	A. Frequency B. Average C. Mode D. Median
502	A line which has only one point in common with a circle is called:	A. chord B. secant C. tangent D. sector
503	If the rotation of the ray is clockwise, the angle is _____ in measure:	A. positive B. negative C. initial D. terminal
504	Circles having three points in common:	A. Overlapping B. Collinear C. Not coincide
505	The measure which determines the middle-most observation in a data set is called:	A. Median B. Mode C. Mean
506	If the distance between the centres of two circles is equal to the sum of their radii, then the circles will:	A. Intersect B. Do not intersect C. Touch each other externally
507	Variance is denoted by.....	A. V B. S C. S^2 D. X
508	A relation between two quantities of same kind is called:	A. Proportion B. Ratio C. Variation D. Percentage
509	If the incentre and circumcenter of a triangle coincide the triangle is:	A. Right angle B. Scalene C. Isosceles D. Equilateral
510	$\sin(-350^\circ)$ lies in _____.	A. 1st quadrant B. 2nd quadrant C. 3rd quadrant D. 4th quadrant
511	The set having only one element is called:	A. Null set B. Power set C. Singleton set D. Subset
512	If $A = \{0,1,2\}$, $B = \{2,3,4,5\}$, then $A \cup B$ are:	A. Empty sets B. Equal sets C. Overlapping sets D. Disjoint set
513	Question Image	
514	$\tan 90^\circ =$ _____	A. 1 B. 0 C. Undefined D. None of these


A. Real, equal

515	Roots of the equation $4x^2 - 4x + 1 = 0$ are:	B. Real, unequal C. Imaginary D. Irrational
516	$\tan 90^\circ =$ _____.	A. $\sqrt{3}/2$ B. $1/\sqrt{3}$ C. 0 D. undefined
517	The most frequently occurring observation in a data set is called.	A. Mode B. Median C. Harmonic mean D. Mean
518	K is known as:	A. Sign of proportionality B. Extremes C. Constant of proportionality D. Means
519	if $A \cap B = \emptyset$, then set A and B aresets.	A. sub B. over C. Disjoint D. Power
520	The portion of a circle bounded by an arc and a chord is known as:	A. Diameter of the circle B. Radius of the circle C. Chord of the circle D. Segment of the circle
521	Euclid's Elements have been thought as _____ all over the world for centuries:	A. Text book B. Reference book C. Helping book D. Major subject
522	If $y = kx$, $x = 7$ and $y = 6$, then $k =$	A. 42 C. 13
523	In an equilateral triangle ABC, then side BC is trisected at D then:	
524		A. 1.5cm B. 2.0cm C. 2.5cm D. 3.5cm
525		A. -2 B. 2 C. 4 D. -4
526	The important thing in ratio is:	A. Value of the elements B. Order of the elements C. Unit of the elements D. Quantity of the elements
527	If $\tan \theta = \sqrt{3}$. then θ is equal to	A. 90° B. 45° C. 60° D. 30°
528	$7 - 7h = 0$, then $h =$:	A. 7 B. 1 C. 0 D. 49
529	The most frequent occurring observation in a data set is called:	A. Mode B. Median C. Harmonic mean
530	$A \cup (B \cap C) =$ _____	A. $(A \cup B) \cap (A \cup C)$ B. $A \cap (B \cap C)$ C. $(A \cap B) \cup (A \cap C)$ D. $A \cup (B \cup C)$
531	If $b^2 - 4ac > 0$, but not a perfect square then roots of $ax^2 + bx + c = 0$ are:	A. Imaginary B. Rational C. Irrational D. None of these
532	The symbol used to denote a second is:	A. 1° , $1'$ B. 1° C. $1''$ D. $1'$
533	The formula of range is:	A. $X_{\max} - X_{\min}$ B. $X_{\max} + X_{\min}$ C. groups/wight D. none of these

534	The domain of $R = \{(0,2),(2,3),(3,3)(3,4)\}$ is.	A. $\{0,3,4\}$ B. $\{0,2,3\}$ C. $\{0,2,4\}$ D. $\{2,3,4\}$
535	The spread or scatierness of observations in a data set is called.	A. Average B. Dispersion C. Central tendency D. Quartile
536	A collection of well-defined distinct object is called:	A. Subset B. Power set C. Set D. None of these
537	$1 + \cot^2 \theta =$ _____.	A. $\tan^2 \theta$ B. $\operatorname{cosec}^2 \theta$ C. $\cot^2 \theta$ D. $\sec^2 \theta$
538	A set with no element is called.	A. Subset B. Empty set C. Singleton set D. Super set
539	Each of the complex cube root of unity is:	A. The square of the other B. The half of the other C. The cube of the other D. Equal to each other
540	$\sin \theta, \operatorname{Cosec} \theta =$	A. 1 B. 0 C. $\sin \theta$ D. $\cos \theta$
541	The distance of any point of the circle to its centre is called:	A. Radius B. Diameter C. A chord D. An arc
542	A line which has only one point in common with a circle is called:	A. Sine of a circle B. Cosine of a circle C. Tangent of a circle D. Secant of a circle
543	Sum of the roots of the equation $3x^2 - 5x + 7 = 0$:	B. $5+3$ D. 5×3
544	A deviation is defined as a difference of any value of the variable from a.	A. Constant B. Histogram C. Sum D. Product
545	$\sec^2 \theta - \tan^2 \theta =$ _____.	A. $\sec^2 \theta$ B. $\cos^2 \theta$ C. 1 D. $\sin^2 \theta$
546	The length of the diameter of a circle is how many times the radius of the circle:	A. 1 B. 2 C. 3
547	If an object is above the level of observation then angle formed between the horizontal line and observer's line of sight is called:	A. Angle of dispersion B. Angle of elevation C. Obtuse angle D. None of these
548	The centre of incircle is called:	A. Origin B. Incentre C. Centre D. Fixed point
549	If two sets have some elements common but not all are called..... sets	A. Sub B. OVERLAPPING C. Disjoint D. Super
550	Mean of a variable with similar observations say constant k is.....	A. Negative B. K- itself C. zero D. one
551	Factors of $5x^2 - 30 = 0$ are:	A. $5x(x+6)$ B. $6x(x+5)$ C. $6x(x-5)$ D. $5x(x-6)$
	The word geometry is derived from two Greek	A. Size B. Land

552	The word geometry is derived from two Greek words namely Geo and:	B. Lano C. Metron D. Shape
553	$\cot \theta =$ _____	A. $\sin \theta / \cos \theta$ B. $1 / \cos \theta$ C. $\cos \theta / \sin \theta$ D. $1 / \sin \theta$
554	Tangent drawn at the ends of diameter of a circle of _____ to each other:	A. parallel B. perpendicular C. collinear D. none parallel
555	If $R = \{(0,2), (2,3), (3,4)\}$ then Dom (R) is:	A. {0,3,4} B. {0,2,3} C. {0,2,4} D. {2,3,4}
556	Two intersecting circles are not:	A. Incentric B. Escribecentric C. Concentric D. Circumcentri
557	An _____ is defined as the union of two non-col-linear rays with some common end point:	A. angle B. vertex C. initial side D. terminal
558	$3\pi/2$ radians =	A. 90° B. 180° C. 270° D. 360°
559	The _____ of a given point on a line segment is the foot of perpendicular drawn from the point on that line segment.	A. position B. co terminal C. projection D. standard position
560	The distance of a point inside the circle from its centre is _____ than the radius:	A. Greater B. Equal C. Shorter D. Less
561	A cumulative frequency table is also called:	A. Frequency distribution B. Data C. Less than cumulative frequency distribution
562	If set A has all its elements common with set B then set A is called.....set.	A. Sub B. Overlapping C. Disjoint D. Super
563	$1/\cos \theta =$	A. $\sin \theta$ B. $\sec \theta$ C. Co $\sec \theta$ D. $\cos \theta$
564	If variables occurs in exponent, then such equations are called:	A. Constant equations B. Linearequations C. Exponentialequations D. Binomial equations
565	An equation of the type $2^x + 64 \cdot 2^{-x} - 20 = 0$ is called:	A. Exponential equation B. Reciprocalequation C. Radicalequation D. Linearequation
566	Variation has	A. Two types B. Three types C. Four types D. Five type
567	360 degrees make 4 _____ angles:	A. Obtuse B. Right C. Acute D. Supplementary
568	Two linear factors $x^2 - 15x + 56$ are:	A. (x-7) and (x+8) B. (x+7) and (x-8) C. (x-7) and (x-8) D. (x+7) and (x+8)
569	Question Image	B. -1
570	An angle which is equal to 90° is called:	A. right angle B. obtuse angle C. acute angle D. none of these

D. none of these

571	Pi radians is equal to:	A. 150° B. 160° C. 180° D. 240°
572	If the angles subtended by two chords of a circle (or congruent circles) at the centre (corresponding centre) are equal, the _____ are equal:	A. Lines B. Segments C. Chords D. Arcs
573	The product of roots, of equation $5x^2 + (7-2m)x + 3 = 0$ will be:	
574	A tangent is perpendicular to the radius of a circle at its point of:	A. Tangent B. Touch C. Contact D. Meet
575	The range of $R = \{(1, 3), (2, 2), (3, 1), (4, 4)\}$ is:	A. {1, 2, 4} B. {3, 2, 4} C. {1, 2, 3, 4} D. {1, 3, 4}
576	The extent of variation between two extreme observations in a data is called.	A. Average B. Range C. Quartiles D. None of these
577	A set $Q = \{a/b \mid a, b \in \mathbb{Z} \wedge b \neq 0\}$ is called a set of.	A. Whole numbers B. Natural number C. Irrational numbers D. Rational numbers
578	The radius of a circumscribed circle is called:	A. Circum-radius B. Escribed-radius C. In-radius D. Radius
579	The extent of variation between two extreme observations of a data set is measured by.....	A. Average B. Range C. Quartiles D. Mode
580		B. bc
581	A line intersecting a circle is called:	A. Tangent B. Secant C. Chord
582	An angle inscribed in a semi-circle is a _____ angle:	A. Obtuse B. Right C. Supplementary D. Acute
583	Three times the square on any side of an equilateral triangle equal to four times the square on the:	A. Median B. Altitude C. Side D. Vertex
584	Sum of the deviations of the variable x from its mean is always....	A. Zero B. One C. Same D. Negative
585	The two tangents drawn to a circle from a point outside it, are equal in;	A. Length B. Radius C. Measure D. Diameter
586	The factors of $3x^2 - 7x - 20 = 0$ are:	A. $(x-4)(3x+5)$ B. $(x+4)(3x-5)$ C. $(x-4)(3x-5)$ D. $(x+4)(3x+5)$
587	The number of elements in power set $\{1, 2, 3\}$ is.	A. 4 B. 8 C. 6 D. 9
588	$\sin(-310^\circ) = \dots\dots\dots$	A. $\sin 310^\circ$ B. $-\sin 310^\circ$ C. $\cos 310^\circ$ D. $\tan 310^\circ$
589	The medians of equilateral triangles are	A. Sides B. Angle

589	proportional to their corresponding:	C. Point D. Altitude
590	In a set of data, the difference between highest value and lowest value is called:	A. Standard deviation B. Range C. Dispersion D. All of these
591	Tangents drawn at the ends of diameter of a circle are _____ to each other:	A. Parallel B. Non parallel C. Collinear D. Perpendicular
592	Question Image	A. Proper fraction B. Improper fraction C. Irrational fraction D. Rational fraction
593	$3\pi/2$ Radian = _____	A. 30° B. 135° C. 180° D. 270°
594	Question Image	A. Sides B. Angles C. Squares D. Vertex
595	The nature of the root of equation $x^2-5x+5=0$	A. Rational and equal B. Irrational and unequal C. Irrational and equal D. Rational and unequal
596	$W - N = \dots\dots\dots$	A. \emptyset B. $\{\emptyset\}$ C. N D. W
597	The discriminant of $x^2-3x+3=0$ is:	A. -3 B. 3 C. -2 D. 2
598	Acute angle is:	A. 80° B. 60° C. 90° D. 120°
599	The point (4,-6) lies in.....quadrant.	A. I B. II C. III D. <i>IV</i>
600	A data in the form of frequency distribution is called.....	A. Grouped data B. Ungrouped data C. Histogram D. Dispersion
601	The discriminant of quadratic equation is:	B. b^2-4ac C. $-b^2+4ac$
602	Arithmetic mean is a measure that determines a value of the variable under study by dividing the sum of all values of the variable by their:	A. Number B. Group C. Denominator
603	The length of the diameter of a circle is how many times the radius of circle:	A. 1 B. 2 C. 3 D. 4
604	A histogram is a set of adjacent:	A. Squares B. Rectangles C. Circles
605	Question Image	A. <p>Proper fraction</p> B. <i>Improper fraction</i> C. <p>Rational fraction</p> D. <p>Irrational fraction</p>
606	The mean of the squared deviations of $x_1, (i = 1, 2, \dots, n)$ observations from their arithmetic mean is called.....	A. Variance B. Standard deviation C. Range D. Mode

607	If $a : b = c : d$, then $a - b : b = c - d : d$ is called theorem of :	<p>A. Componendo</p> <p>B. Dividendo</p> <p>C. (a) & (b)</p> <p>D. Invertendo</p>
608	$1 + \tan^2 \theta =$ _____	<p>A. $\sin^2 \theta$</p> <p>B. $\cos^2 \theta$</p> <p>C. $\operatorname{cosec}^2 \theta$</p> <p>D. $\sec^2 \theta$</p>
609	Angles between 180° and 270° are to which quadrant?	<p>A. I</p> <p>B. II</p> <p>C. III</p> <p>D. IV</p>
610	Question Image	
611	Mean of a variable with similar observations any constant k is:	<p>A. Negative</p> <p>B. k itself</p> <p>C. Zero</p>
612	The harmonic mean of the observation 0,15,12, is:	<p>A. 3.7</p> <p>B. 7.3</p> <p>C. 6.7</p> <p>D. no harmonic mean</p>
613	$3\pi/4$ radians =	<p>A. 115°</p> <p>B. 135°</p> <p>C. 150°</p> <p>D. 30°</p>
614	$\sec^2 \theta =$	<p>A. $1 - \sin^2 \theta$</p> <p>B. $1 + \tan^2 \theta$</p> <p>C. $1 + \cos^2 \theta$</p> <p>D. $1 - \tan^2 \theta$</p>
615	Product of two roots =	
616	The number of elements in power set $\{1,2,3\}$:	<p>A. 4</p> <p>B. 6</p> <p>C. 8</p> <p>D. 9</p>
617	A tangent line intersects the circle at:	<p>A. Three points</p> <p>B. Two points</p> <p>C. Single point</p> <p>D. No point at all</p>
618	In a cyclic quadrilateral, the opposite angles are:	<p>A. Complementary</p> <p>B. Abtuse</p> <p>C. Supplementry</p> <p>D. Acute</p>
619	$1/2 \operatorname{Cosec} 45^\circ =$ _____	<p>A. $1/2\sqrt{2}$</p> <p>B. $1/\sqrt{2}$</p> <p>C. $\sqrt{2}$</p> <p>D. $\sqrt{3}/2$</p>
620	The sum of the squares of sides of a rhombus is equal to the sum of the squares of its:	<p>A. Sides</p> <p>B. Diagonals</p> <p>C. Medians</p> <p>D. Altitude</p>
621	Through how many non-collinear points a circle can pass ?	<p>A. One</p> <p>B. Two</p> <p>C. Three</p> <p>D. Four</p>
622	The Range of R $= \{(1,3), (2,2), (3,1), (4,4)\}$ is.	<p>A. $\{1,2,4\}$</p> <p>B. $\{3,2,4\}$</p> <p>C. $\{1,2,3,4\}$</p> <p>D. $\{1,3,4\}$</p>
623	In a proposition $a:b::c:d$, a and d are called:	<p>A. Means</p> <p>B. Extremes</p> <p>C. Fourth proportional</p> <p>D. None</p>
624	The lengths of two transverse tangents to a pair of circles are:	<p>A. Unequal</p> <p>B. Equal</p> <p>C. Overlapping</p>

C. Overlapping

625	To resolve rational fraction, multiply both sides by:	A. H.C.F B. An even, number C. L.C.M D. An odd number
626	Question Image	
627	The length of a chord and the radial segment of a circle are congruent, the central angle made by the chord will be:	A. 30° B. 45° C. 60° D. 75°
628	The positive square root of mean of the squared deviations of x_i ($i = 1, 2, \dots, n$) observation from their arithmetic mean is called.	A. Harmonic mean B. Range C. S.D D. Variance
629	If $a:b = x:y$, then invertendo property is:	
630	Which of the following is commutative law?	A. $A \cup (B \cap C) = (A \cup B) \cap C$ B. $A \cap (B \cap C) = (A \cap B) \cap C$ C. $A \cup B = B \cap A$ D. $(A \cup B) \cap C = A \cap B \cap C$
631	If $A \subseteq B$ then $A \cup B =$ _____	A. A B. B C. \emptyset D. None of these
632	The number of elements in the power set of $\{1, 2, 3, 4\}$.	A. 4 B. 8 C. 16 D. 0
633	When the number of observations of a set of data is even then the median formula is:	
634	The nature of the roots of equation $ax^2+bx+c=0$, is determined by:	A. Sum of the roots B. Product of the roots C. Synthetic division D. Discriminant
635	If 'r' is the radius of a circle, then its circumference is.	A. $\pi/2r$ B. πr C. $2\pi r$ D. $4\pi r$
636	The perpendicular bisector of a chord of a circle passes through the:	A. Centre B. Radius C. Diameter D. Arc
637	Solution set of equation $5x^2-125 = 0$ is:	A. {5} B. {10} C. {-5}
638	A cumulative frequency table is called.	A. Frequency distribution B. Data C. Less than frequency distribution D. None of these
639	By definition, which of the following is a set?	A. {a,b,c,d} B. {1,2,3,2} C. {l,m,n,o} D. {0,1,2,3,1}
640	The sum of 30 observations is 1500. Its average will be:	A. 1500 B. 150 C. 15 D. None of these
641	$\sin^2\theta + \cos^2\theta =$ _____:	A. $\sin\theta$ B. $\cos\theta$ C. 1 D. 2
642	The area of a circle is:	
643	Roots of following equation are: $9x^2-4x+1=0$:	A. Real, Equal B. Real, Unequal C. Imaginary D. Irrational
644	$20^\circ =$	A. 360' B. 630' C. 1200' D. 3600'

645	The chord length of a circle subtending a central angle of 180° is always:	A. Less than radial segment B. Equal to the radial segment C. Double of the radial segment D. None of these
646	If number of elements in set, A is 3 and in set B is 2 then number of binary relations in $A \times B$ is:	A. 2^3 B. 2^6 C. 2^8 D. 2^2
647	A fraction with degree of numerator less than degree of denominator:	A. Equation B. Improper C. Identify D. Proper
648	In which quadrant 0 lie when $\sin\theta < 0, \sec\theta < 0$?	A. I B. II C. III D. IV
649	In ax^2+bx+c , the co-efficient of x^2 is:	A. c B. b C. d D. a
650	Question Image	A. 5 B. 18 C. 15 D. 23
651	A straight line which cuts the circumference of a circle in two distinct points is called:	A. chord B. secant C. tangent D. sector
652	Question Image	
653	Geometry means measure of the:	A. Earth or Straight line B. Earth or Land C. Triangle or Polygon D. Earth or Point
654	Question Image	A. Radical equation B. Reciprocal equation C. Exponential equation D. None of these
655	Equal chords of a circle (or of congruent circles) subtend equal _____ at the centre (corresponding centres):	A. Arcs B. Angles C. Regions D. Chords
656	$ax^2+bx+c=0$, c is the:	A. Co-efficient B. Variable C. Factors D. Constant
657	If $A \subseteq B$ then $A - B$ is equal to	A. A B. B C. \emptyset
658	In equation $ax^4+bx^2+c=0$, we replace:	A. $x^2 = y$ B. $x = y$ C. $x^4 = y$ D. $x^3 = y$
659	$\text{Co sec } 30^\circ = \dots\dots\dots$	A. $1/2$ B. $\sqrt{3}/2$ C. 2 D. $2/\sqrt{3}$
660	A cumulative frequency curve is also called:	A. Histogram B. Pie chart C. Ogive D. Frequency polygon
661	In class (20-29), Midpoint or class mark is.....	A. 20.5 B. 24.5 C. 29 D. 49
662	The range of $\{(a,a),(b,b),(c,c)\}$ is	A. $\{a,b\}$ B. $\{a,b,c\}$ C. $\{a\}$ D. \emptyset

663	$A \subseteq B$ then $A - B =$ _____	B. B C. \emptyset D. $B - A$
664	If union and intersection of two sets are equal then sets are.....sets.	A. Disjoint B. Overlapping C. Equal D. Super
665	The symbol used to denote a degree is:	A. 100 B. 1° C. 100' D. 1"
666	Diameter _____ a circle:	A. Divides B. Trisects C. Intercept D. Bisects
667	A data in the form of frequency distribution is called.	A. Grouped data B. Ungroup data C. Same D. None of these
668	$\sec^2 \theta$ _____	A. $1 - \sin^2 \theta$ B. $1 - \tan^2 \theta$ C. $1 + \cos^2 \theta$ D. $1 - \tan^2 \theta$
669	Types of measures of central tendency are.....	A. 3 B. 4 C. 5 D. 6
670	$\sin 60^\circ =$	A. 1 B. 0
671	The distance of a point outside the circle from its centre is _____ than the radius:	A. Less B. Equal C. Greater D. None of these
672	In continued proportional $a:b = b:c$, c is said to be _____ proportional to a and b:	A. Third B. Fourth C. Means D. None of these
673	In the given set of data 5,7,7,5,3,7,2,8,2 mode is:	A. 9 B. 5 C. 2 D. 7
674	The measure of a central angle of minor arc of a circle is _____ that of the angle subtends by corresponding major arc:	A. Half B. Equal C. Double D. Triple
675	Locus of a point in a plane equidistant from a fixed point is called:	A. Radius B. Circle C. Circumference D. Diameter
676	$1/\sin \theta =$	A. $\cos \theta$ B. $\sec \theta$ C. $\csc \theta$ D. $\cot \theta$
677	A cumulative frequency table is also called.....	A. Frequency distribution B. Data C. Less than cumulative frequency distribution D. Histogram
678	The tangent to a circle and the radial segment joining the point of contact and the _____ are perpendicular to each other:	A. Chord B. Centre C. Tangent D. Arc
679	$O \cup E =$	A. \emptyset B. O C. E D. Z
680	Triangle with sides 5cm , 7cm 8cm is a _____ triangle:	A. obtuse angle B. right angle C. acute angle D. quadrant angle
		A. Tangent B. Chord

681	The circumference of a circle is called:	<div><div>B. Circle</div><div>C. Boundary</div><div>D. Segment</div></div>
682	Power set of an empty set is:	<div><div>B. {a}</div></div>
683	The union of two noncollinear rays, which have common endpoint is called	<div><div>A. An angle</div><div>B. A degree</div><div>C. A minute</div><div>D. A raian</div></div>